UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,879	04/27/2001	Mika Forssell	975.336USW1	1754

32294 7590 05/06/2005	EXAMINER
SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182	IQBAL, KHAWAR

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-39* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage

        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 17-21,24-29,31-35 and 39 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Koivunen (5479481) and further in view of Foti (6067454).

3.   Regarding claim 17 Koivunen teaches a method for restoring a subscriber

context in a network element of a mobile communication network which comprises at

least a first and a second network element, the second element storing a plurality of

subscribers contexts related to the first network element, comprising the steps of (figs.

2-3):

transmitting a restart information from first to second network element, the

restart information indicating whether the first network element has been restarted and

whether a subscriber context has been updated in the first network element after the

latest restart (col.2, lines 52-67, col.2, line 52-col. 3, line 15, col. 5, lines 45-65);

continuing the use of a subscriber context updated after said latest restart (col.2,

lines 52-67, col.2, line 52-col. 3, line 15, col. 5, lines 45-65). Koivunen teaches the

method uses a visitor location register (VLR), which receives from the home location

register (HLR) of the cellular radio system a restart indication. It changes the restart

number of the HLR, which sent the restart indication in the HLR list of the VLR. When

the VLR receives from a mobile exchange an indication of the establishment of a radio

connection with a subscriber, the VLR compares the subscriber-specific restart number

of the subscriber with the HLR restart number of the subscriber (col.2, line 52-col. 3, line

15). Koivunen dose not specifically teach, inactivating the all subscriber contexts which

are stored in the second network element for use of the first network element and have

been updated before the latest restart of the first network when the restart information of

the message received in the receiving step doffers from the restart information stored

for the first network element.

In an analogous art, Foti teaches, inactivating the all subscriber contexts which

are stored in the second network element for use of the first network element and have

been updated before the latest restart of the first network when the restart information of

the message received in the receiving step doffers from the restart information stored

for the first network element (col. 5, lines 5-55). Subscriber profiles in home location

register that failed attempts to update associated temporary subscriber records in

mobile switching center, during restart procedure, are identified after the completion of

the restart procedure. Only those temporary subscriber records, which are identified

from the identified subscriber profiles, are updated. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

the system of Koivunen et al by specifically modifications, in order to enhance system

performance and reduces load on MSC and on signaling links between MSC and HLR

as taught by Foti.

Regarding claim 26 Koivunen teaches a system for restoring a subscriber context

in a network element of a mobile communication network which comprises at least a

first and a second network element, the second element storing a plurality of

subscribers contexts related to the first network element, comprising (figs. 2-3):

transmitting means for transmitting restart information from the first to the second

network element, the restart information a indicating whether the first network element

has been restarted and whether a subscriber context has been updated in the first

network element after the latest restart (col.2, lines 52-67);

wherein said second network element comprises receiving means for receiving

said restart information, and control means for continuing the use of a subscriber

context updated after said latest restart (col.2, lines 52-67) and for inactivation of the

plurality of subscriber contexts which are stored in the second net work element related

to the first network element and have been updated before said latest restart, in

response to said restart information (col. 2, lines 5-25, col.2, line 52-col. 3, line 15, col.

5, lines 45-65). Koivunen teaches the method uses a visitor location register (VLR),

which receives from the home location register (HLR) of the cellular radio system a

restart indication. It changes the restart number of the HLR, which sent the restart

indication in the HLR list of the VLR. When the VLR receives from a mobile exchange

an indication of the establishment of a radio connection with a subscriber, the VLR

compares the subscriber-specific restart number of the subscriber with the HLR restart

number of the subscriber (col.2, line 52-col. 3, line 15). Koivunen dose not specifically

teach, transmitting means for transmitting a restart information from the second network

element to the first network element, including counter for counting a restart number

and adding means for adding said restart number to a subscriber context message.

In an analogous art, Foti teaches transmitting means for transmitting a restart

information from the second network element to the first network element, including

counter for counting a restart number and adding means for adding said restart number

to a subscriber context message.

(col. 5, lines 5-55). Subscriber profiles in home location register that failed

attempts to update associated temporary subscriber records in mobile switching center,

during restart procedure, are identified after the completion of the restart procedure.

Only those temporary subscriber records, which are identified from the identified

subscriber profiles, are updated. Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify the system of

Koivunen et al by specifically modifications, in order to enhance system performance

and reduces load on MSC and on signaling links between MSC and HLR as taught by

Foti.

Regarding claim 31 Koivunen teaches a network element for a mobile

communication network, comprising, (figs. 2-3):

transmitting means for transmitting a restart information from the network

element, the restart information indicating whether the network element has been

restarted and whether a subscriber context has been updated in the net work element

after the latest restart (col.2, line 52-col. 3, line 15). Koivunen teaches the method uses

a visitor location register (VLR), which receives from the home location register (HLR) of

the cellular radio system a restart indication. It changes the restart number of the HLR, which sent the restart indication in the HLR list of the VLR. When the VLR receives from a mobile exchange an indication of the establishment of a radio connection with a subscriber, the VLR compares the subscriber-specific restart number of the subscriber with the HLR restart number of the subscriber (col.2, line 52-col. 3, line 15). Koivunen dose not specifically teach, receiving means for receiving a restart information from anther network element, the restart information indicating whether the anther network element has been restarted and whether a subscriber context has been updated in the anther network element after the latest restart.

In an analogous art, Foti teaches, receiving means for receiving a restart information from anther network element, the restart information indicating whether the anther network element has been restarted and whether a subscriber context has been updated in the anther network element after the latest restart (col. 5, lines 5-55). Subscriber profiles in home location register that failed attempts to update associated temporary subscriber records in mobile switching center, during restart procedure, are identified after the completion of the restart procedure. Only those temporary subscriber records, which are identified from the identified subscriber profiles, are updated. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Koivunen et al by specifically modifications, in order to enhance system performance and reduces load on MSC and on signaling links between MSC and HLR as taught by Foti.

As to claim 39 it is considered the claim is rejected for the same reason as set forth in claim 1.

Regarding claims 18,21,28,29,32 Koivunen teaches wherein said restart information is a restart counter value and is transmitted together with a context signaling message (col.2, line 52-col. 3, line 15, see claim 1 also).

Regarding claims 19,20,27,35 Koivunen teaches wherein said restart counter value is compared with a stored restored counter value (number) so as to determine said subscriber context updated before the latest restart (col.2, line 52-col. 3, line 15, see claim 1 also).

Regarding claim 21 Koivunen teaches wherein said restart information transmitted only one time after said latest restart (col.2, line 52-col. 3, line 15, see claim 1 also).

Regarding claims 24,33 Koivunen teaches wherein said restart information is transmitted separately or in a separate message (col.2, line 52-col. 3, line 15, see claim 1 also).

Regarding claims 25 Koivunen teaches wherein said restart information is a restart counter value (col.2, line 52-col. 3, line 15, see claim 1 also).

Regarding claim 34 Koivunen teaches control means for continuing the use of plurality subscriber contexts related to anther network element and having been updated after said latest restart and for inactivating a subscriber context updated before said latest restart in response to said restart information (col. 2, lines 5-25, col.2, line 52-col. 3, line 15, col. 5, lines 45-65, see claim 1 also).

Claims 22,23,30,36-38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Koivunen (5479481) and further in view of Foti (6067454) and Josse

et al (6104929).

Regarding claims 22, 23,30,36-38 Koivunen and Foti do not specifically teach

wherein said network element is GPRS support node.

Koivunen teaches the method uses a visitor location register (VLR), which

receives from the home location register (HLR) of the cellular radio system a restart

indication. It changes the restart number of the HLR, which sent the restart indication in

the HLR list of the VLR. When the VLR receives from a mobile exchange an indication

of the establishment of a radio connection with a subscriber, the VLR compares the

subscriber-specific restart number of the subscriber with the HLR restart number of the

subscriber (col.2, line 52-col. 3, line 15). Koivunen also teaches the method according

to the invention may also be applied in other similar radio systems or in the

modifications of the GSM system (col. 3, lines 38-40).

In an analogous art, Josse et al teaches wherein said network element is GPRS

support node, and wherein said restart information is transmitted together with a tunnel

management signaling message (col. 21, lines 33-53) and subscriber context is a PDP

context (col. 21, lines 33-53). Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify the system of Koivunen et al

by specifically modifications of the GSM system to GPRS system in order to enhance

system performance and increasing the efficiency of system as taught by Josse et al.

Response to Arguments

4.   Applicant's arguments with respect to claims 17-39 have been considered but are

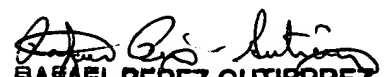moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Khawar Iqbal whose telephone number is (571) 272-

7909.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone

number for the organization where this application or proceeding is assigned is (703)

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist/customer service whose telephone

number is (571) 272-2600.

Khawar Iqbal

RAFAEL PEREZ-GUTIERREZ
PATENT EXAMINER
4/29/05